

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re. application of:

Application No.: 10/715,090

Filed: 11/17/2003

Applicant: Amit Sarkar

Title: Method and Apparatus for Operating
a Primary PC from a Remote Pseudo-Mobile PC

Examiner: Barqadle, Yasin M

Art Unit: 2153

Docket No.: 61784.010100

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Request For Continued Examination

Sir:

In response to the final office action dated February 17, 2010, please amend the above-referenced application as follows:

Amendments to the Specification: There are no amendments to the specification.

Amendments to the Claims are reflected in the listing of claims, which begin on page 2 of this response.

Remarks begin on page 9 of this response.

Attachments:

1. Transmittal Form, PTO/SB/21;
2. Petition for Extension of Time by 1 month, PTO/SB/22;
3. Request For Continued Examination Transmittal, Form PTO/SB/30; and
4. Payment of the following fees by credit card:
 - \$65 towards 1 month time extension; and
 - \$405 for the RCE;

The director is hereby authorized to charge any underpayment of fees, or any other fee that may be required to deposit account # 503291.

Amendments to the Claims

Claims 1-25 (canceled).

Claim 26 (currently amended): A system for sending information from a mobile input/output device to a primary processing unit for receiving and processing the information sent, and transmitting the processed information from the primary processing unit back to the mobile input/output device for display and use by a user, wherein said system comprises:

said primary processing unit, wherein said primary processing unit processes said information received from the mobile input/output device, stores said information, and handles a plurality of resources including one or more system services, one or more custom configurations, and one or more software applications, wherein said primary processing unit is connected to one or more servers for accessing said information stored in said servers;

said mobile input/output device, wherein said mobile input/output device accesses the primary processing unit and the resources of the primary processing unit for processing and storing the information provided by said user at said mobile input/output device, ~~wherein said mobile input/output device cannot process the information and cannot temporarily store the information locally, and~~ wherein the mobile input/output device is integratable with one of a cell phone and a personal digital assistant, and wherein the mobile input/output device comprises:

[[a]] an input device ~~user interface~~ on said mobile input/output device for accepting said information input by said user of said mobile input/output device;

~~a hardware transceiver on within the mobile input/output device for digitizing, compressing and converting signals received from said primary processing unit into cellular packets for transmission over a cellular data transmission network transmitting said input information at the mobile input/output device to said primary processing unit for processing and receiving electronic signals based on said processed input information from said primary processing unit over a third party communication network, wherein said third party communication network is one of a fixed line network and a wireless network;~~

a processing unit at the mobile input/output device for rendering said received electronic signals into one or more of audio signals, visual signals, and a combination of both audio signals and visual signals;

~~an LCD screen for displaying said rendered visual signals as screen flashes to said user of the mobile input/output device; and~~

a speaker for presenting said rendered audio signals to the user as audio output at the mobile input/output device.

Claim 27 (original): The system of claim 26, wherein the third party communication network is one of a wireless carrier network, a wireless local area network, a Wi-Fi connection, a Wi-Max connection and a publicly available “hotspot”, wherein the third party communication network provides an internet service.

Claim 28 (original): The system of claim 26, wherein the third party communication network is one of a land line based broadband from an Internet service provider and a local area network providing Internet service via land line.

Claim 29 (original): The system of claim 26, wherein the LCD screen comprises a touch screen interface with or without an on-screen keyboard.

Claim 30 (original): The system of claim 26, wherein the mobile input/output device comprises one of an external keyboard, an on-screen keyboard, and a combination of an external keyboard and an on-screen keyboard, and further wherein the mobile input/output device comprises a mouse, a pointing device, and a combination of a mouse and a pointing device.

Claim 31 (original): The system of claim 26, wherein the mobile input/output device is a stand-alone mobile input/output device integratable with one of said cell phone and said personal digital assistant.

Claim 32 (currently amended): The system of claim 26, wherein the mobile input/output device is integrated with a laptop personal computer, and is accessed as an independent software application, ~~and wherein said laptop personal computer utilizes one of a Windows operating system and a Mac operating system.~~

Claim 33 (original): The system of claim 26, wherein the input information transmitted to the primary processing unit from the mobile input/output device are unprocessed electronic signals.

Claim 34 (original): The system of claim 26, wherein the primary processing unit is one of a personal computer and one or more of said servers.

Claim 35 (original): The system of claim 26, wherein the primary processing unit is networked with a plurality of personal computers and servers in one of a local area network configuration and a wide area network configuration.

Claim 36 (original): The system of claim 26, wherein the primary processing unit runs one of a Windows operating system, a Mac operating system, a Unix operating system, and a Linux operating system.

Claim 37 (original): The system of claim 26, wherein the primary processing unit is an integral part of a multi-server system, further wherein the primary processing unit is used to operate on applications and databases within said multi-server system.

Claim 38 (original): The system of claim 26, wherein the primary processing unit manipulates said software applications, said system services, said custom configurations, and the information residing in one or more remote data centers, in addition to the information residing locally in hard disk of the primary processing unit.

Claim 39 (original): The system of claim 26, wherein the primary processing unit maintains uninterrupted connection to one of said servers that provide Internet service.

Claim 40 (original): The system of claim 26, wherein the primary processing unit is connected with one or more shared peripherals, wherein the user of the mobile input/output device remotely accesses said one or more shared peripherals.

Claim 41 (original): The system of claim 26, wherein the primary processing unit and the mobile input/output device is connected through an intermediating server, wherein said intermediating server performs switching functions and manages connections between multiple pairs of primary processing unit and mobile input/output device.

Claim 42 (canceled).

Claim 43 (original): The system of claim 26, wherein the communication between the primary processing unit and the mobile input/output device is routed through Internet.

Claim 44 (canceled).

Claim 45 (currently amended): The system of claim 26, wherein the mobile input/output device further comprises a basic operating system where said basic operating system and said processing unit are specifically designed and configured to exclusively drive input and output peripherals of the mobile input/output device and one of wireless connectivity and landline connectivity, ~~and wherein the mobile input/output device is incapable of downloading one or more third party software applications, locally executing said third party software applications, and locally manipulating the third party software applications.~~

Claim 46 (original): The system of claim 26, wherein the mobile input/output device comprises multiple form factors based on user preference and custom configuration including detachability of peripherals.

Claim 47 (canceled).

Claim 48 (original): A method for sending information from a mobile input/output device to a primary processing unit for receiving and processing the information sent, and transmitting the processed information from the primary processing unit back to the mobile input/output device for display and use by a user, wherein said method comprises:

entering said information by said user in said mobile input/output device;

digitizing and compressing said information by said mobile input/output device;

converting said digitized and compressed information to a plurality of electronic signals by said mobile input/output device;

securely transmitting said electronic signals from said mobile input/output device to said primary processing unit over a third party communication network,

wherein said third party communication network is one of a fixed line network or a wireless network;

receiving and decoding said transmitted electronic signals by said primary processing unit, wherein said decoded electronic signals are translated into system input signals for manipulating, processing, and storing information at the primary processing unit;

processing said system input signals by the primary processing unit using one or more resources of the primary processing unit to obtain processed information, wherein said resources include software and services accessible by the primary processing unit;

translating the processed information into audio-visual electronic signals at the primary processing unit;

compressing said audio-visual electronic signals and converting said compressed electronic audio-visual signals into cellular packets for transmission;

securely transmitting said cellular packets from the primary processing unit to said mobile input/output device over said third party communication network;

receiving said transmitted cellular packets by the mobile input/output device and decoding said received cellular transmission packets into electronic signals;

converting said decoded packets into audio-visual signals by the mobile input/output device; and

presenting said received audio-visual signals as one of an audio output, screen flashes, and a combination of both audio output and screen flashes at the mobile input/output device.

whereby said method of input information at the mobile input/output device enables said user to access the resources of the primary processing unit.

Claim 49 (original): The method of claim 48, wherein said information is entered into said mobile input/output device using one or more input devices, wherein said input devices comprise one or more of a keyboard, a pointer device, and any combination thereof.

Claim 50 (original): The method of claim 48, wherein said screen flashes are presented to said user using a display device, wherein said display device comprises a touch screen interface for receiving the information signals from the user through a pointer device.

Claim 51 (currently amended): The system of claim 26, wherein said mobile input/output device runs complementary software, wherein said complementary software comprises:

- a first layer for translating said information provided by said user into system input signals for use by an underlying operating system;

- a second layer for digitizing and compressing said information;

- a third layer for converting said compressed information into a plurality of cellular transmission packets, wherein said third layer compresses said cellular transmission packets; and

- a fourth layer for transmitting said compressed cellular transmission packets over the third party communication network using said ~~transceiver~~ hardware.

Remarks

The Present Invention and the Pending Claims

This invention relates generally to computer networking, and more particularly to a new method and apparatus for transmitting information (input) signals from a mobile input/output device to a user's primary processing unit such as a desktop PC for processing and then transmitting the processed information (output) signals from the primary processing unit back to the mobile input/output device, thus enabling the user to operate the primary processing unit remotely from the mobile input/output device.

Claims 26-51 are currently pending. Reconsideration and allowance of claims 26-51 is respectfully requested.

Amendments To The Claims

Claims 26, 32, 45, and 51 are currently amended. Claims 42 and 44 have been canceled. Support for amendments are provided in paragraphs [0033], [0034], [0035], and [0036].

The office action states: **“Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement”**.

In response to the above rejection, claim 26 has been amended.

The office action further states: **“Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement”**.

In response to the above rejection, claim 26 has been amended.

The office action further states **“Claim 45 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement”**.

In response to the above rejection, claim 45 has been amended.

The office action further states: **“Claim 32 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement”**.

In response to the above rejection, claim 32 has been amended.

The office action further states: **“Claim 45 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement”**.

In response to the above rejection, claim 45 has been amended.

The office action further states: **“Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement”**.

In response to the above rejection, claim 26 has been amended.

The office action further states: **“Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite to failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention”**.

In response to the above rejection, claim 26 has been amended.

The office action further states: **“Claim 45 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite to failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention”**.

In response to the above rejection, claim 45 has been amended.

The office action further states: “**Claims 48-51 are rejected under 35 USC 102(b) as being anticipated by Boals et al US Patent Number 6108727, herein Boals.**”

Applicant discloses **receiving and decoding the transmitted electronic signals** by the primary processing unit. The decoded signals are translated into system input signals for manipulating, processing and storing information at the primary processing unit (see applicant’s disclosure, paragraph [0039]). Furthermore, applicant discloses compressing audio-visual electronic signals and **converting the compressed electronic audio-visual signals into cellular packets** for transmission to the primary processing unit (see applicant’s disclosure, paragraphs [0034], [0035], and [0039]). Boals does not disclose the step of **decoding the transmitted electronic signals**. Also, Boals does not disclose the step of converting **the compressed electronic audio visual signals into cellular packets** for transmission to the primary processing unit (see Boals column 11, lines 33-47). In contrast, Boals discloses, *inter alia*, communication between the remote host computer and the wireless interface device is by way of a wireless communication link provided by a communication subsystem (see Boals, column 5, lines 45-62).. Also, Boals discloses setting up a communication link along with a security feature.. Accordingly Boals does not disclose the following limitations in claim 48:

“receiving and decoding said transmitted electronic signals by said primary processing unit, wherein said decoded electronic signals are translated into system input signals for manipulating, processing, and storing information at the primary processing unit”, and

“compressing said audio-visual electronic signals and converting said compressed electronic audio-visual signals into cellular packets for transmission”.

Furthermore, applicant discloses transmitting **cellular packets** from the primary processing unit to the mobile input/output device in a secure manner (see paragraph [0036]). Also, applicant discloses that **the mobile input/output device receives the**

transmitted cellular packets and **decodes the received cellular packets** (see paragraph [0041]). Boals does not disclose secure transmission of the cellular packets from the remote host computer to the wireless interface device. Furthermore, the cellular packets are not decoded by the wireless interface when they are received by the mobile device. Accordingly, Boals does not disclose the following limitations in claim 48:

“securely transmitting said cellular packets from the primary processing unit to said mobile input/output device over said third party communication network;” and

“receiving said transmitted cellular packets by the mobile input/output device and decoding said received cellular transmission packets into electronic signals;”.

Therefore, applicant respectfully submits that claim 48 is novel over Boals and the rejection of claim 48 be withdrawn.

Claims 49 and 50 are dependent on claim 48. Since claim 48 is novel over Boals, applicant respectfully submits that dependent claims 49 and 50 are also novel over Boals and accordingly, the rejection of claims 49 and 50 be withdrawn.

Regarding claim 51, applicant discloses a third layer for converting compressed information into cellular packets. Applicant also discloses a fourth layer for transmitting the compressed cellular transmission packets over a third party communication network. Boals does not disclose conversion of compressed information into cellular packets. Also, Boals does not disclose transmitting the compressed cellular transmission packets over a third party communication network. In contrast, Boals discloses **transmitting compressed files** to the wireless interface device (see Boals, col. 64, lines 35-40). Accordingly, Boals does not teach or suggest the following limitations in claim 51:

“a third layer for converting said compressed information into a plurality of cellular transmission packets, wherein said third layer compresses said cellular transmission packets; and”

“a fourth layer for transmitting said compressed cellular transmission packets over the third party communication network using said hardware.”

The office action also states: **“Claims 26-41, 43, and 45-47 are rejected under 35 USC 103(a) as being unpatentable over Fullerton et al U.S. Publication Number (20050018640) in view of Dowling et al. US Patent Number 20030050019 (hereinafter “Dowling”)”.**

Fullerton in view of Dowling does not teach or suggest all the limitations in claim 26. Applicant discloses a mobile input/output device for accessing a primary processing unit for information processing and storage. Hardware within the mobile input/output device **digitizes, compresses and converts signals received from the primary processing unit into cellular packets** for transmission over a cellular data transmission network (see paragraphs [0032], [0033], [0034], [0035], and [0036]). Fullerton does not disclose the step of digitizing, compressing, and converting signals received from the primary processing unit into cellular packets for transmission over a cellular data transmission network. In contrast, Fullerton discloses, *inter alia*, converting data received from an **impulse radio** to digital data (see Fullerton, paragraph [0125]). Accordingly, Fullerton in view of Dowling does not teach or suggest the following limitation in claim 26:

“a hardware within the mobile input/output device for digitizing, compressing and converting signals received from said primary processing unit into cellular packets for transmission over a cellular data transmission network”.

Accordingly, even if Fullerton and Dowling are combined as suggested in the office action, there is no reasonable expectation of success in arriving at the claimed invention. Accordingly, applicant respectfully submits that claim 26 is not obvious over Fullerton in view of Dowling and requests the rejection of claims 26 be withdrawn.

Claims 27-41, 43, and 45-47 are dependent on claim 26. Since claim 26 is not obvious over Fullerton in view of Dowling, applicant respectfully submits that claims 27-41, 43, and 45-47 that are dependent on claim 26 are also not obvious over Fullerton in view of Dowling, and accordingly the rejection of claims 27-41, 43, and 45-47 be withdrawn.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If, in the opinion of Examiner Barqadle, a telephone conference would expedite the prosecution of this application, Examiner Barqadle is requested to call the undersigned.

Respectfully submitted,

Date: May 30, 2010



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